HEWLETT-PACKARD COMPANY Intellectual Property Administration 3404 E. Harmony Road Mail Stop 35 Fort Collins, Colorado 80528

ATTORNEY DOCKET NO. HP-10012162-1

#### IN THE

#### UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): John G. APOSTOLOPOULOS et al. Confirmation No.: 5149

Application No.: 09/899,622 Examiner: Tanim M. Hossain

Filing Date: 07/03/2001 Group Art Unit: 2445

Title: METHOD AND SYSTEM FOR DELIVERING STREAMING MEDIA TO FIXED CLIENTS OR MOBILE CLIENTS

WITH MULTIPLE DESCRIPTION BITSTREAMS

Mail Stop Appeal Brief-Patents Commissioner For Patents PO Box 1450 Alexandria, VA 22313-1450

#### TRANSMITTAL OF APPEAL BRIEF

Transmitted he	rewith	is the Appeal Brief in	this a	application with respe	ct to	the Notice of Appea	l filed o	on 07/11/2010
The fee for	filing tl	his Appeal Brief is \$5	40.00	(37 CFR 41.20).				
☐ No Addition	nal Fee	e Required.						
			(con	nplete (a) or (b) as a	pplic	cable)		
The proceedings herein are for a patent application and the provisions of 37 CFR 1.136(a) apply.								
(a) Applican	it petiti shecke	ions for an extension d below:	of tir	me under 37 CFR 1.	136	(fees: 37 CFR 1.17	(a)-(d))	) for the total number of
		1st Month \$130		2nd Month \$490		3rd Month \$1110		4th Month \$1730
The exte	nsion t	fee has already been	filed i	in this application.				
		ves that no extension hat applicant has inac						eing made to provide for dension of time.
please charge Additionally ple	any f ase ch	ees required or cre-	dit ar posit	ly over payment to Account 08-2025 un	Dep der 3	oosit Account 08-20 37 CFR 1.16 through	25 pui	dency of this application rsuant to 37 CFR 1.25 inclusive, and any othe

Respectfully submitted,

John G. APOSTOLOPOULOS et al.

By: /John P. Wagner, Jr./

John P. Wagner, Jr.

Attorney/Agent for Applicant(s)

Reg No.: 35,398 Date: 09/13/2010

Telephone: 408-377-0500

Rev 10/09 (E-AplBrief)

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appellants: APOSTOLOPOULOS, et al. Patent Application

Application No.: 09/899,622 Group Art Unit: 2445

Filed: July 3, 2001 Examiner: Hossain, T.

For: METHOD AND SYSTEM FOR DELIVERING STREAMING MEDIA TO FIXED

CLIENTS OR MOBILE CLIENTS WITH MULTIPLE DESCRIPTION

**BITSTREAMS** 

### **APPEAL BRIEF**

10012162-1 Group Art Unit: 2445

# Table of Contents

	<u>Page</u>			
Real Party in Interest	1			
Related Appeals and Interferences	2			
Status of Claims	3			
Status of Amendments	4			
Summary of Claimed Subject Matter	5			
Grounds of Rejection to Be Reviewed on Appeal	8			
Argument	9			
Conclusion	15			
Appendix – Clean Copy of Claims on Appeal	16			
Appendix – Evidence Appendix				
Appendix – Related Proceedings Appendix				

10012162-1 Group Art Unit: 2445

# I. Real Party in Interest

The assignee of the present application is Hewlett-Packard Development Company, L.P.

10012162-1 Group Art Unit: 2445

# II. Related Appeals and Interferences

There are no related appeals or interferences known to the Appellants.

10012162-1 Group Art Unit: 2445

## III. Status of Claims

Claims 1, 4-11, 14-26 are pending. Claims 2, 3, 12, and 13 have been cancelled. Claims 1, 4-11, 14-26 are rejected. This Appeal involves Claims 1, 4-11, 14-26.

Appellants note that the Office Action's summary does not list Claims 20-26 as pending and rejected. However, the Final Office Action mailed May 12, 2010 rejected Claims 20-26 on pages 5-8. Therefore, Appellants have indicated in this Status of Claims that Claims 20-26 are pending and rejected.

10012162-1 Group Art Unit: 2445

# IV. Status of Amendments

All proposed amendments have been entered. An amendment subsequent to the Final Action mailed May 12, 2010 has not been filed.

10012162-1 Group Art Unit: 2445

#### V. Summary of Claimed Subject Matter

Independent Claim 1 recites, "A method (400) for streaming media data to a client," which is described, according to various embodiments, at page 15 line 15 to page 16 line 33; Figure 4. "[E]ncoding (402) an item of content comprising media data to be streamed to said client into a first multiple description bitstream and into a second multiple description bitstream, wherein said first multiple description bitstream and said second multiple description bitstream each consist of complimentary information that is not duplicative and are decodable independent of one another such that said first multiple description bitstream is decodable without utilizing any information comprised within said second multiple description bitstream and said second multiple description bitstream is decodable without utilizing any information comprised within said first multiple description bitstream," is described, according to various embodiments, at page 9 line 15 to page 11 line 7; page 15 line 29 to page 16 line 11; Figures 2, 4. "[D]istributing concurrently (404) said first and second multiple description bitstreams to a plurality of servers placed at intermediate nodes throughout a network, such that said first and second multiple description bitstreams are sent to said client via a plurality of transmission paths, wherein said client decodes said item of content at a first quality should only said first multiple description bitstream be received at said client, wherein said client decodes said item of content at a second quality should only said second multiple description bitstream be received at said client, and wherein said client decodes said item of content at a quality greater than either of said first or second quality should both said first and said second multiple description bitstreams be received at said client," is described, according to various embodiments, at page 16 lines 13-33; Figure 4.

Independent Claim 11 recites, "A method (400) for achieving reliability and efficiency and for reducing single points of failure in the streaming of media data to a client" which is described, according to various embodiments, at page 15 line 15 to page 16 line 33; Figure 4. "[E]ncoding (402) an item comprising media data to be streamed to said client into a first complementary multiple description bitstream and into a second complementary multiple description bitstream, each of said first and second complementary multiple description bitstreams consisting of complementary information that is not duplicative and not included in the other of said first and

10012162-1 Group Art Unit: 2445

second complementary multiple description bitstreams, and wherein said first multiple description bitstream is designed so that said item at a first quality is decoded by said client with only said first multiple description bitstream received at said client and without utilizing any information comprised within said second multiple description bitstream, wherein said second multiple description bitstream is designed so that said item at a second quality is decoded by said client with only said second multiple description bitstream received at said client and without utilizing any information comprised within said first multiple description bitstream, and wherein said item at a quality greater than said first or second quality is decoded by said client with both said first and said second multiple description bitstreams received at said client," is described, according to various embodiments, at page 9 line 15 to page 11 line 7; page 15 line 29 to page 16 line 11; Figures 2, 4. "[D]istributing concurrently (404) said first complementary multiple description bitstream and said second complementary multiple description bitstream to a plurality of servers placed at intermediate nodes throughout a network, such that said first and second multiple description bitstreams are dispatched to said client via a plurality of transmission paths," is described, according to various embodiments, at page 16 lines 13-33; Figure 4.

Independent Claim 20 recites, "A system (350) for streaming media data to a client" which is described, according to various embodiments, at page 12 line 29 to page 15 line 14; Figures 3A, 3B. "[A] first server (304a-304e) having first memory coupled thereto, said first memory having a first multiple description bitstream of encoded said media data stored thereon, said first server adapted to transmit said first multiple description bitstream to a client via a first path through said network," is described, according to various embodiments, at page 13 lines 1-22; page 9 line 15 to page 11 line 7; Figures 3A, 3B. "[A] second server (304a-304e) having second memory coupled thereto, said second memory having a second multiple description bitstream of encoded said media data stored thereon, wherein said first multiple description bitstream and said second multiple description bitstream each consist of complimentary information that is not duplicative and are decodable independent of one another such that said first multiple description bitstream is decodable without utilizing any information comprised within said second multiple description bitstream

10012162-1 Group Art Unit: 2445

and said second multiple description bitstream is decodable without utilizing any information comprised within said first multiple description bitstream and wherein said first and said second multiple description bitstreams have approximately a same bit rate, wherein said second multiple description bitstream is transcoded by said second server to a reduced bit rate according to an amount of available bandwidth for a second path through said network, said second server adapted to transmit transcoded said second multiple description bitstream to said client via said second path, said first and second servers concurrently transmitting said first and said transcoded second multiple description bitstreams such that said first and said transcoded second multiple description bitstreams are provided to said client via a plurality of transmission paths," is described, according to various embodiments, at page 13 lines 1-22; page 14 lines 1-22; page 15 lines 4-13; page 15 line 15 to page 17 line 5; Figures 3A, 3B. "[W]herein said client (352, 356) decodes an item of content at a first quality should only said first multiple description bitstream be received at said client, wherein said client decodes said item of content at a second quality should only said second multiple description bitstream be received at said client, and wherein said client decodes said item of content at a quality greater than either of said first or second quality should both said first and said second multiple description bitstreams be received at said client," is described, according to various embodiments, at page 13 lines 24-39; page 17 lines 7-10; Figures 3A, 3B.

10012162-1 Group Art Unit: 2445

## VI. Grounds of Rejection to Be Reviewed on Appeal

- 1. The instant Office Action states that Claims 1, 4-11 and 14-19 are rejected under 35 U.S.C. §103(a) as being unpatentable over US 2001/0040871 ("Abrahamsson") in view of US 2002/0040479 ("Ehrman").
- 2. The instant Office Action states that Claims 20-26 are rejected under 35 U.S.C. §103(a) as being unpatentable over Abrahamsson and Ehrman and further in view of US 6,308,222 ("Krueger").

10012162-1 Group Art Unit: 2445

### VII. Argument

1. Whether Claims1, 4-11 and 14-19 are Unpatentable Under 35 U.S.C. §103(a) over Abrahamsson in view of Ehrman.

Appellants respectfully submit that the embodiments of the present invention as recited in Claims 1, 4-11 and 14-19 are patentable over the combination of Abrahamsson and Ehrman for at least the following rationale.

Claim 1 recites an embodiment of the present invention (emphasis added): A method for streaming media data to a client, said method comprising:

encoding an item of content comprising media data to be streamed to said client into a first multiple description bitstream and into a second multiple description bitstream, wherein said first multiple description bitstream and said second multiple description bitstream each consist of complimentary information that is not duplicative and are decodable independent of one another such that said first multiple description bitstream is decodable without utilizing any information comprised within said second multiple description bitstream is decodable without utilizing any information comprised within said first multiple description bitstream; and

distributing concurrently said first and second multiple description bitstreams to a plurality of servers placed at intermediate nodes throughout a network, such that said first and second multiple description bitstreams are sent to said client via a plurality of transmission paths, wherein said client decodes said item of content at a first quality should only said first multiple description bitstream be received at said client, wherein said client decodes said item of content at a second quality should only said second multiple description bitstream be received at said client, and wherein said client decodes said item of content at a quality greater than either of said first or second quality should both said first and said second multiple description bitstreams be received at said client.

Independent Claims 11 and 20 recite similar embodiments. Claims 4-10, 14-19 and 21-26 that depend from Claims 1, 11 and 20, respectively, also include these embodiments.

"As reiterated by the Supreme Court in *KSR*, the framework for the objective analysis for determining obviousness under 35 U.S.C. 103 is stated in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966). Obviousness is a question of law based on underlying factual inquiries" including "[a]scertaining the differences

10012162-1 Group Art Unit: 2445

between the claimed invention and the prior art" (MPEP 2141(II)). "In determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious" (emphasis in original; MPEP 2141.02(I)). Appellants note that "[t]he prior art reference (or references when combined) need not teach or suggest all the claim limitations, however, Office personnel must explain why the difference(s) between the prior art and the claimed invention would have been obvious to one of ordinary skill in the art" (emphasis added; MPEP 2141(III)).

Moreover, Appellants respectfully note that "[a] prior art reference must be considered in its entirety, i.e., as a <u>whole</u>, including portions that would lead away from the claimed invention" (emphasis in original; MPEP 2141.02(VI); *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984)).

Appellants respectfully submit that Abrahamsson does not teach or suggest "distributing concurrently said first and second multiple description bitstreams," as claimed (emphasis added). Moreover, Appellants respectfully submit that Abrahamsson teaches away from "distributing concurrently said first and second multiple description bitstreams," as claimed (emphasis added). Appellants understand Abrahamsson to disclose "different segment descriptors are then transmitted in separate data packets at different points in time" (emphasis added; 0034) and "diversity is provided from multiple descriptions by transmitting/receiving different individual segment descriptions of the same sound segment in different data packets at different time instances" (emphasis added; 0036). In contrast, Appellants claim "distributing concurrently said first and second multiple description bitstreams" (emphasis added). By disclosing distributing different complimentary segment descriptors (e.g.,  $D_1(n)$  and  $D_2(n)$ ) at different times (and not concurrently), Appellants respectfully submit that Abrahamsson teaches away from "distributing concurrently said first and second multiple description bitstreams," as claimed (emphasis added).

10012162-1 Group Art Unit: 2445

Moreover, Ehrman does not overcome the deficiencies of Abrahamsson. Appellants understand Ehrman to disclose "streaming content via a network to a receiver includes the steps of providing a plurality of streams to a plurality of different suppliers and receiving multiple streams from the different suppliers" (abstract). In particular, Ehrman does not disclose "distributing <u>concurrently</u> said first and second multiple description bitstreams," as claimed (emphasis added).

In the Response to Remarks section on pages 8 and 9, the Office Action asserts that Abrahamsson teaches "distributing concurrently said first and second multiple description bitstreams," as recited at 0049, 0054, 0016 and Figure 5.

With respect to 0016, Abrahamsson is referring to prior art by Vaishampayan. Appellants respectfully submit that Vaishampayan as described in 0016 does not teach or suggest "distributing concurrently said first and second multiple description bitstreams...said client decodes said item of content at a first quality should only said first multiple description bitstream be received at said client, wherein said client decodes said item of content at a second quality should only said second multiple description bitstream be received at said client, and wherein said client decodes said item of content at a quality greater than either of said first or second quality should both said first and said second multiple description bitstreams be received at said client." as recited.

Abrahamsson states at lines 14-19 of 0031, "The diversity provided is a time diversity achieved by transmitting different encoded segment descriptions of one and the same sound segment in different packets at different points in time, and by decoding a sound segment at a receiving end based on those segment description that were received within a predetermined time interval." Abrahamsson states at lines 8-11 0050, "For example, as indicated in FIG. 4a, the two segment descriptions  $D_1(n)$  and  $D_2(n)$  of sound segment n is delivered to the Controller 440 in separate packets 421 and 422 at different points in time t1 and t2." Therefore, Appellants respectfully submit that n represents a sound segment and  $D_1(n)$  and  $D_2(n)$  represent two different descriptions of the same sound segment n. Further, the two different descriptions  $D_1(n)$  and  $D_2(n)$  are delivered at different points in time.

10012162-1 Group Art Unit: 2445

Abrahamsson states at lines 8-12 of 0035, "The sound segment of the digitized sound signal is then decoded based on a merger of those segment descriptions that were received within the predefined time interval. If only one segment description was received, the sound segment is decoded based on that single segment description." Therefore, Appellants understand Abrahamsson to teach that a sound segment n is decoded based on a merger of those segment descriptions  $D_1(n)$  and  $D_2(n)$  that were received within the predefined time interval.

Appellants respectfully note that Claim 1 also recites "said client decodes said item of content at a first quality should only said first multiple description bitstream be received at said client, wherein said client decodes said item of content at a second quality should only said second multiple description bitstream be received at said client, and wherein said client decodes said item of content at a quality greater than either of said first or second quality should both said first and said second multiple description bitstreams be received at said client."

The Office Action appears to assert in the first paragraph on page 9 that  $D_2(n)$  and  $D_1(n+1)$  are respectively examples of a first multiple description bitstream and a second multiple description bitstream. However, as discussed herein, Abrahamson does not teach or suggest decoding his bitstream segment n at a first quality should only  $D_2(n)$  be received, decoding his bitstream segment n at a second quality should only  $D_1(n+1)$  be received and decoding his bitstream segment n at a quality greater than the first quality or the second quality should both  $D_2(n)$  and  $D_1(n+1)$  be received (lines 14-19 of 0031, lines 8-11 0050, lines 8-12 of 0035). Therefore, Abrahamsson's  $D_2(n)$  and  $D_1(n+1)$  cannot respectively teach or suggest "a first multiple description bitstream" and "a second multiple description bitstream" as recited.

Further,  $D_1(n)$  and  $D_2(n)$  cannot respectively teach or suggest "a first multiple description bitstream" and "a second multiple description bitstream" as recited since Abrahamsson explicitly teaches away from distributing his  $D_1(n)$  and  $D_2(n)$  concurrently (lines 14-19 of 0031, lines 8-11 0050, lines 8-12 of 0035). Therefore,

10012162-1 Group Art Unit: 2445

Appellants respectfully submit that there is no motivation to combine Abrahamsson with any other art, such as Ehrman, because Abrahamsson teaches away from "distributing concurrently said first and second multiple description bitstreams," as recited.

Appellants respectfully submit that the combination of Abrahamsson and Ehrman, as a whole, does not satisfy a *prima facie* case of obviousness under 35 U.S.C. §103(a). Therefore, Appellants respectfully submit that the combination of Abrahamsson and Ehrman does not render obvious the claimed embodiments of the present invention as recited in independent Claims 1 and 11, that these claims overcome the rejection under 35 U.S.C. § 103(a), and that these claims are thus in a condition for allowance. Appellants respectfully submit that the combination of Abrahamsson and Ehrman also does not render obvious the additional claimed features of the present invention as recited in Claims 4-10 and 14-19 that depends from independent Claims 1 and 11, respectively. Therefore, Appellants respectfully submit that Claims 4-10 and 14-19 also overcome the rejection under 35 U.S.C. § 103(a), and are in a condition for allowance as being dependent on an allowable base claim.

10012162-1 Group Art Unit: 2445

# 2. Whether Claims 20-26 are Unpatentable Under 35 U.S.C. §103(a) Over Abrahamsson in View of Ehrman and Further in View of Krueger.

Appellants respectfully submit that the embodiments of the present invention as recited in Claims 20-26 are patentable over the combination of Abrahamsson, Ehrman and Kreuger for at least the following rationale.

Abrahamsson and Ehrman do not render the embodiment of Claim 20 unpatentable, as presented above. In particular, Abrahamsson teaches away "distributing concurrently said first and second multiple description bitstreams," as claimed. Moreover, Krueger does not overcome the deficiencies of Abrahamsson. Appellants understand Krueger to disclose "[a] proxy server has a connection to a client computer and to a remote server over the Internet" (abstract). In particular, Krueger does not disclose "distributing concurrently said first and second multiple description bitstreams," as claimed.

Appellants respectfully submit that the combination of Abrahamsson, Ehrman and Krueger, <u>as a whole</u>, does not satisfy a *prima facie* case of obviousness under 35 U.S.C. §103(a). Therefore, Appellants respectfully submit that the combination of Abrahamsson, Ehrman and Krueger does not render obvious the claimed embodiments of the present invention as recited in independent Claim 10, that this claim overcomes the rejection under 35 U.S.C. § 103(a), and that this claim is thus in a condition for allowance. Appellants respectfully submit that the combination of Abrahamsson, Ehrman and Krueger also does not render obvious the additional claimed features of the present invention as recited in Claims 21-26 that depends from independent Claim 20, respectively. Therefore, Appellants respectfully submit that Claims 21-26 also overcome the rejection under 35 U.S.C. § 103(a), and are in a condition for allowance as being dependent on an allowable base claim.

10012162-1 Group Art Unit: 2445

#### Conclusion

Appellants believe that pending Claims 1, 4-11 and 14-19 are patentable over Abrahamsson and Ehrman. Appellants believe that pending Claims 20-26 are patentable over Abrahamsson, Ehrman and Krueger. As such, Appellants submit that Claims 1, 4-11, 14-26 are patentable over the asserted art.

Appellants respectfully request that the rejection of Claims 1, 4-11, 14-26 be reversed. The Appellants wish to encourage the Examiner or a member of the Board of Patent Appeals to telephone the Appellants' undersigned representative if it is felt that a telephone conference could expedite prosecution.

Respectfully submitted, Wagner Blecher LLP

Dated: September 13, 2010 /John P. Wagner, Jr./

John P. Wagner, Jr. Registration No.: 35,398

Wagner Blecher LLP Westridge Business Park 123 Westridge Drive Watsonville, CA 95076

Phone: (408) 377-0500 Facsimile: (831) 722-2350

10012162-1 Group Art Unit: 2445

#### VIII. Appendix - Clean Copy of Claims on Appeal

1. A method for streaming media data to a client, said method comprising: encoding an item of content comprising media data to be streamed to said client into a first multiple description bitstream and into a second multiple description bitstream, wherein said first multiple description bitstream and said second multiple description bitstream each consist of complimentary information that is not duplicative and are decodable independent of one another such that said first multiple description bitstream is decodable without utilizing any information comprised within said second multiple description bitstream and said second multiple description bitstream is decodable without utilizing any information comprised within said first multiple description bitstream; and

distributing concurrently said first and second multiple description bitstreams to a plurality of servers placed at intermediate nodes throughout a network, such that said first and second multiple description bitstreams are sent to said client via a plurality of transmission paths, wherein said client decodes said item of content at a first quality should only said first multiple description bitstream be received at said client, wherein said client decodes said item of content at a second quality should only said second multiple description bitstream be received at said client, and wherein said client decodes said item of content at a quality greater than either of said first or second quality should both said first and said second multiple description bitstreams be received at said client.

4. The method for streaming media data to a client as recited in Claim 1, wherein said encoding further comprises:

encoding said item of media data into a first and a second complementary multiple description bitstream wherein each of said first and second complementary multiple description bitstreams does not include encoded media data that is included in the other of said first and second complementary multiple description bitstreams.

5. The method for streaming media data to a client as recited in Claim 1, wherein said item of media data is selected from the group consisting of audio-based

10012162-1 Group Art Unit: 2445

data, speech-based data, image-based data, graphic data, and web page-based data.

6. The method for streaming media data to a client as recited in Claim 1, wherein said distributing further comprises:

distributing said first multiple description bitstream to a first server and distributing said second multiple description bitstream to a second server.

- 7. The method for streaming media data to a client as recited in Claim 1, wherein said client is a mobile client.
- 8. The method for streaming media data to a client as recited in Claim 7, wherein said distributing further comprises:

distributing said first and second multiple description bitstreams to servers placed along a wired/wireless gateway.

- 9. The method for streaming media data to a client as recited in Claim 1, wherein said method does not require complete duplication of said media data in order to achieve path diversity.
- 10. The method for streaming media data to a client as recited in Claim 1, wherein said method is performed in a network system selected from the group consisting of: wired and wired networks; wired and wireless networks; wireless and wired networks; and wireless and wireless networks.
- 11. A method for achieving reliability and efficiency and for reducing single points of failure in the streaming of media data to a client, said method comprising:

encoding an item comprising media data to be streamed to said client into a first complementary multiple description bitstream and into a second complementary multiple description bitstream, each of said first and second complementary multiple description bitstreams consisting of complementary information that is not duplicative and not included in the other of said first and second complementary multiple description bitstreams, and wherein said first multiple description bitstream is

10012162-1 Group Art Unit: 2445

designed so that said item at a first quality is decoded by said client with only said first multiple description bitstream received at said client and without utilizing any information comprised within said second multiple description bitstream, wherein said second multiple description bitstream is designed so that said item at a second quality is decoded by said client with only said second multiple description bitstream received at said client and without utilizing any information comprised within said first multiple description bitstream, and wherein said item at a quality greater than said first or second quality is decoded by said client with both said first and said second multiple description bitstreams received at said client; and

distributing concurrently said first complementary multiple description bitstream and said second complementary multiple description bitstream to a plurality of servers placed at intermediate nodes throughout a network, such that said first and second multiple description bitstreams are dispatched to said client via a plurality of transmission paths.

- 14. The method for achieving reliability and efficiency and for reducing single points of failure in the streaming of media data to a client as recited in Claim 11, wherein said media data is selected from the group consisting of audio-based data, speech-based data, image-based data, graphic data, and web page-based data.
- 15. The method for achieving reliability and efficiency and for reducing single points of failure in the streaming of media data to a client as recited in Claim 11, wherein said distributing further comprises:

distributing said first complementary multiple description bitstream to a first server and distributing said second complementary multiple description bitstream to a second server.

16. The method for achieving reliability and efficiency and for reducing single points of failure in the streaming of media data to a client as recited in Claim 11, wherein said client is a mobile client.

10012162-1 Group Art Unit: 2445

17. The method for achieving reliability and efficiency and for reducing single points of failure in the streaming of media data to a client as recited in Claim 16, wherein said distributing further comprises:

distributing said first complementary multiple description bitstream and said second complementary multiple description bitstream to servers placed along a wired/wireless gateway.

- 18. The method for achieving reliability and efficiency and for reducing single points of failure in the streaming of media data to a client as recited in Claim 11, wherein said method does not require complete duplication of said media data in order to achieve path diversity.
- 19. The method for achieving reliability and efficiency and for reducing single points of failure in the streaming of media data to a client as recited in Claim 11, wherein said method is performed in a network system selected from the group consisting of: wired and wired networks; wired and wireless networks; wireless and wired networks; and wireless and wireless networks.
- 20. A system for streaming media data to a client, said system comprising: a first server having first memory coupled thereto, said first memory having a first multiple description bitstream of encoded said media data stored thereon, said first server adapted to transmit said first multiple description bitstream to a client via a first path through said network; and

a second server having second memory coupled thereto, said second memory having a second multiple description bitstream of encoded said media data stored thereon, wherein said first multiple description bitstream and said second multiple description bitstream each consist of complimentary information that is not duplicative and are decodable independent of one another such that said first multiple description bitstream is decodable without utilizing any information comprised within said second multiple description bitstream and said second multiple description bitstream is decodable without utilizing any information comprised within said first multiple description bitstream and wherein said first and said second multiple description bitstreams have approximately a same bit rate, wherein said

10012162-1 Group Art Unit: 2445

second multiple description bitstream is transcoded by said second server to a reduced bit rate according to an amount of available bandwidth for a second path through said network, said second server adapted to transmit transcoded said second multiple description bitstream to said client via said second path, said first and second servers concurrently transmitting said first and said transcoded second multiple description bitstreams such that said first and said transcoded second multiple description bitstreams are provided to said client via a plurality of transmission paths;

wherein said client decodes an item of content at a first quality should only said first multiple description bitstream be received at said client, wherein said client decodes said item of content at a second quality should only said second multiple description bitstream be received at said client, and wherein said client decodes said item of content at a quality greater than either of said first or second quality should both said first and said second multiple description bitstreams be received at said client.

21. The system for streaming media data to a client of Claim 20 further comprising:

a content server coupled to said first server and said second server, said content server adapted to provide said first multiple description bitstream of encoded said media data to said memory coupled to said first server, said content server further adapted to provide said second multiple description bitstream of encoded said media data to said memory coupled to said second server.

- 22. The system for streaming media data to a client of Claim 20, wherein said media data is selected from the group consisting of audio-based data, speech-based data, image-based data, graphic data, and web page-based data.
- 23. The system for streaming media data to a client of Claim 20, wherein said client is a mobile client.
- 24. The system for streaming media data to a client of Claim 23 wherein said first server is placed along a wired/wireless gateway of a network.

10012162-1 Group Art Unit: 2445

25. The system for streaming media data to a client of Claim 20 wherein said second server is placed along a wired/wireless gateway of a network.

26. The system for streaming media data to a client of Claim 20 wherein first server and said second server reside within a network system selected from the group consisting of: wired and wired networks; wired and wireless networks; wireless and wired networks; and wireless and wireless networks.

10012162-1 Group Art Unit: 2445

## IX. Evidence Appendix

No evidence is herein appended.

10012162-1 Group Art Unit: 2445

# X. Related Proceedings Appendix

No related proceedings.

10012162-1 Group Art Unit: 2445